

**ABSTRACT OF THE DISCLOSURE**

A process for manufacturing a self-extinguishing cable including at least one transmissive element and at least one flame-retardant coating in a position radially external to the at least one transmissive element, wherein the at least one coating includes an expanded flame-retardant polymeric material having (a) at least one expandable polymer; (b) at least one expanding agent; (c) at least one flame-retardant inorganic filler, in an amount of 100 parts by weight of 250 parts by weight with respect to 100 parts by weight of the at least one expandable polymer. The process includes the following steps: (i) feeding the flame-retardant polymeric material to an extruding apparatus, therein melting and mixing it; (ii) passing the flame-retardant polymeric material obtained in step (i) through at least one static mixer; and (iii) depositing by extrusion the flame-retardant polymeric material obtained in step (ii) onto the at least one transmissive element conveyed to the extruding apparatus